

AN3RT-D

ANALYZER, SPECTRUM, REAL TIME

1. GENERAL. This procurement requires a spectrum analyzer with the capability of measuring absolute amplitude and frequency characteristics of audio and RF signals.

2. CLASSIFICATION. Type II, Class 5, Style E, and Color R in accordance with MIL-T-28800 for shipboard applications. The convertible/rackmountable requirement is invoked.

3. MEASUREMENT REQUIREMENTS. The equipment shall be capable of spectrum analysis within the minimum specifications contained below.

3.1 Frequency specifications.

- a. Real time: 10 Hz to 3 kHz.
- b. Spectrum analysis: 10 Hz to 100 kHz.

3.1.1 Frequency accuracy. 0.1% FS.

3.1.2 Frequency resolution.

- a. Normal: 400 lines.
- b. Expanded (zoom): At least 32 times. Zoom operation permits selected resolution expansion of the baseband resolution around a desired frequency.

3.1.3 Filters.

- a. Anti-aliasing: ≥ 96 dB/octave rolloff.
- b. 1/3 octave: Shall meet ANSI S1.11-1966 Class III.

3.2 Input amplitude specifications.

3.2.1 Input amplitude range. 15 mVrms to 10 Vrms. Accuracy: $\pm 5\%$ FS.

3.2.2 Maximum input without damage. 30 Vrms or greater.

3.2.3 Input RC. 1 megohm or greater shunted by 200 pF or less.

3.2.4 Dynamic range. 70 dB.

3.2.5 Frequency response. ± 1 dB or less.

3.2.6 Input overload indicator. The overload indicator threshold shall be between 95% and 110% FS.

3.3 Memory. The equipment shall be provided with a means of storing and recalling up to 32 signal traces.

3.4 Handle. A tilt bail handle in accordance with MIL-T-28800 may be provided.

3.5 Display dimensions. 101.6 mm (4 in) by 69.8 mm (2-3/4 in) minimum.

3.6 Rackmounting. The equipment shall be contained in a Style E enclosure for portability and shall be provided with a conversion kit which will allow rackmounting in accordance with the convertible /rackmountable requirements of MIL-T-28800.

4. GENERAL REQUIREMENTS.

4.1 Power source. MIL-T-28800 nominal power source requirements are invoked. Maximum power consumption: 350W.

4.2 Weight. 20 kg (44 lb) maximum.

4.3 Digital interface. A digital interface is required in accordance with MIL-T-28800.

4.4 Lithium batteries. Per MIL-T-28800, lithium batteries are prohibited without prior authorization. A request for approval for the use of lithium batteries, including those encapsulated in integrated circuits, shall be submitted to the procuring activity at the time of submission of proposals. Approval shall apply only to the specific model proposed.